GRUMMAN plane news

Vol. 33, No. 3, Bethpage, N. Y., February 8, 1974

Flight trainer. **Ground-based simulators — like this F-14 operational flight trainer in Plant 4, Bethpage — duplicate most situations or conditions that pilots might encounter in flight. Enclosed cockpit is mounted on hydraulic, six-degree-of-freedom motion device.**

See billion-dollar future in flight simulator field

No one questions the critical importance of training in providing skilled operators for today's complex aerospace products. The questions that do arise, though, are those regarding how training for these systems should be conducted. And there's a pocket of the industry now emerging in large numbers which leans toward keeping a larger part of the flight training effort on the ground via trainer-simulators — cockpit mock-ups of actual flying craft which recreate just about any condition of situation a flight crew might encounter. So broadly adaptable are simulators today that they now represent a rapidly growing industry whose sales volume over the next few years could exceed a billion dollars a year.

To tap this potential market, Grumman Aerospace recently formed a Training Systems Department, headed by Vice President Ralph "Doc" Tripp. Its mission: to explore, produce and market integrated training systems including maintenance trainers, flight and weapons system simulators, and classroom training. Initially, these systems will be designed for Grumman aircraft, and later will be developed for aircraft made by other manufacturers, as well as for other types of vehicles for which extensive training is necessary.

"Ground-based simulators are more economical and practical than the sole use of training aircraft," says Doc Tripp, "especially today with fuel shortages and the limited availability of expensive aircraft for military flight training. Simulators are not likely to replace in-flight training altogether, but they can help reduce the amount of necessary flight time.

"Moreover, trainer-simulators have come a long way in recent years as sophisticated devices which can simulate—with the help of computers, television techniques and psychological devices — just about any situation or condition a pilot might encounter in flight. In a modern flight simulator the cockpit is completely enclosed and mounted on a hydraulic, six-degree-of-freedom motion device. With the use of television techniques, images of the horizon, an airport, an aircraft carrier, or other aircraft are displayed on the trainer windshield and canopy. Trainers are actually in operation in which it is possible for two pilots to simulate a dogfight. All of this is done without leaving the ground so pilots can get a lot of practice before actually applying their skills in the air. Not surprisingly, for a number of years many airline companies have used simulators with a great deal of success, and today more and more emphasis is being put on simulators for military flight training."

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Elect Bradshaw Secretary of Grumman Corporation

Bob Bradshaw, who was named Assistant Secretary of Grumman Corporation on April 19, 1974, was elected Secretary of the parent Grumman company on January 1 of this year, succeeding Larry Rockwell who had retired.

In making the announcement, Board Chairman Clint Towl disclosed that Bradshaw had been elected Secretary of Grumman Data Systems, Grumman Ecosystems, and Paumonock Insurance, all subsidiaries of Grumman Corporation. Bradshaw is also Personnel Director for Grumman Corporation.

Bob Bradshaw

Following graduation from Stevens Institute of Technology in 1950, Bradshaw, then a mechanical engineer, served in the U.S. Army until the close of 1952. He joined Grumman in 1953, serving in Manufacturing Engineering until October '61 when he was named assistant Personnel director.

He was appointed Personnel Director in May '63, deputy director of Administration in December '65, director of Administration the following year, and, in 1970, director of Corporate Services.

How's your coverage on no-fault?

As of February 1, if you own a car in New York State you are automatically covered by basic no-fault insurance throughout the state. Under the new law, each injured person in your car or any pedestrian or motorcycle operator injured by your car collects primary benefits from your insurance company—regardless of who is at fault in the accident. The basic coverage required by the new no-fault law provides the injured persons with $50,000 coverage per accident and not more than $1,000 a month on lost earnings, less 20%; it covers miscellaneous expenses to a maximum of $25 a day for one year. But the basic plan does not include out-of-state coverage, and liability. Therefore it is best that you check with your insurance company what coverage you now hold on all the cars you own.

If you plan on traveling outside the state, you should carry out-of-state coverage, an option costing most drivers about $3 a year per car. But this coverage only covers those relatives living in your household. To cover people outside your household, you would need the medical payments option; $5,000 per person costs approximately $3 per car a year and coverage of $100,000 is available from some insurance companies for about $7 a year.

You can increase your no-fault limits to $75,000 with $1,500 for loss of

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Unhobbled by adversity, Buxton flies high in GII

SAVANNAH, GA. — Some months ago, when they were out seeing the sights in Paris, Dave Buxton and Brian Conway got a hurry-up call to report to the Embassy of Gabon. The request wasn't unusual—for some months the two men had been accompanying a Grumman American Gulfstream II, assisting in the training of flight and maintenance crews during the introduction of the twin fanjet into service of the President of Gabon. Buxton and Conway were used to being ready to move at a moment's notice.

But when they arrived at the embassy, still dressed in short-sleeve shirts and slacks, they were surprised to find that they, for this moment, at least, were the center of attention. As Dave recalls, no less a national personage than the General de Gendarmarie of Gabon, Georges Nkoma, waited to greet them with his own personal best wishes and to present them with National du Merite medals for their service to Gabon.

It was quite a surprise. And the presentation was all the more prestigious, Buxton believes, because it was the first time that the medal had been awarded to any person not native to Gabon.

Chatting amiably in his office at the Savannah facility of the Grumman American Aviation Corporation, Dave Buxton eludes, somehow, the image most of us have of test pilots. Perhaps it's the whitening sideburns; or it could be the cigarette holder; or possibly the clipped, faintly Boston-tinged diction. Somehow, you'd expect him to be stepping on to a set to film a Schweppes commercial.

Yet Dave, who is manager of flight operations at Savannah, is certainly a corporate jet pilot—a damn good one, his associates say—and in aviation circles he may likely become a legend in his own time. Dave Buxton has an artificial leg.

Attack pilot

It wasn't always that way. Dave has been flying for the past 30 years, the last 11 at Grumman. A World War II attack pilot, he joined M.I.T. following the war and spent eight years attached to its instrumentation lab (where he worked with Dr. Stark Draper, now known as the father of inertial navigation). Later, he was a test pilot with Sperry on automatic pilot and inertial navigation systems, and, in 1963, he came to Grumman. His first assignment was as pilot on the E-2 Hawkeye program.

When he made the move to commercial aircraft operations, he arrived on the scene about the same time the company was starting to flight test its first corporate jet, the Gulfstream II. Dave remembers that first GII flight quite vividly. Bob Smyth and Carl Alber flew the GII and Buxton flew chase in a P-51 Mustang. How did it feel getting into the cockpit of a plane he hadn't flown since the war? "I was really disappointed; it flew like a real dog. I guess I'd been spoiled flying modern aircraft; they handle so easily because of the various boosters and such."

In 1967, Dave moved to Savannah in preparation for the eventual transfer of all Gulfstream final assembly and flight operations to the south. He still spent a good deal of time at Bethpage helping with final GII FAA certification, but those trips became fewer and fewer as Savannah became the only focal point for Gulfstream activity.

Swift comeback

It was Christmas time, 1969. Dave recalls that he spent a busy week flying and walking—he loves golf. His left leg, the one that had been badly damaged in an auto accident six years earlier, was hurting, but as he had learned to do, he ignored it. Dave finished the round but his leg pained so badly that he could hardly bear it.

Things happened rapidly after that. Dave was soon in the hospital for examinations and emergency treatment . . . but it was too late. The lack of circulation was turning his left leg blue-black. It was becoming gangrenous. It had to be removed.

That day the world nearly stopped for Dave Buxton. What does a test pilot who is approaching 50 do with only one leg? "I'd probably be out on the street with most other companies," Dave says. "But I was lucky. Corky Meyer, Bill Schwendler and several others encouraged me to try to get back in flying again. The Company sent me to Mayo Clinic a couple of times to be fitted for an artificial leg."

Dave admits he owes as much to the surgeon who removed his bad leg. "He told me he left the knee joint, even though it wouldn't be as comfortable for me, because he knew I'd have an easier time flying that way."

He got his license back in six months. First he got a flight physical—he passed. Then the FAA put him through a series of stringent flight checks to make sure he could operate a plane safely with an artificial leg. "They had to be sure I could control the aircraft if I lost an engine on takeoff or land without nose-wheel steering, for example." And Dave Buxton passed those tests, too. In less than a year, he had made an amazing comeback.

Dave shares the test flights and pilot training assignments with three others at Savannah, Morgan Cobb (also GII project pilot), Tom O'Brien (GII training coordinator), and Dino Hadjis. Part of the Gulfstream II contract calls for customer flight training by these four men, and because so many foreign nations and firms are buying the popular fanjet, their work carries them to all parts of the globe.

Flight plan. Dave Buxton (L) chats with Capt. Prince Page of Air Liberia concerning various air routes to Africa and Europe. Capt. Page is at Savannah for flight training in the Grumman Gulfstream II. (Photo by Cary Van Sickle)

Buxton, for instance, spent three months outside the United States last year, part of the time in service to the President of Gabon. Dave, who "gets along" in French, and Brian Conway, a Gulfstream Field Service representative based in London who speaks French fluently, accompanied the Gabonese aircraft through much of Africa and Europe during that period, and had been journeying in and out of Algeria, Libya, Morocco, and Egypt when the recent Mid-East war broke out. During his foreign assignments, Buxton has piloted the GII for seven different presidents of African nations —Cameroon, Senegal, Gabon, Congo, Togo, Niger, and Ivory Coast.

Having an artificial leg is not without difficulties. Dave smiles as he talks about the golf tournament he played in a couple of years ago in Warm Springs, Ga., to benefit returning Vietnam amputees. Although he has one leg with an artificial foot on it, Buxton finds it easier to fly—and play golf—with a leg without a foot attached to it (some might call it a peg-leg). Didn't that dig holes in the green, he was asked. "No, I had no trouble at all on the greens, but I sure put holes in the sand traps."

Then there was the time when Dave arrived at the Savannah plant ready for a full day of flight testing . . . but his artificial leg, made of fiberglass wrapped around a metal frame, was developing a crack in it. What followed was probably the most classic "G" job on record: a couple of friends took the leg into the plant, repaired the crack in the fiberglass, and in an hour or so Dave was ready to take off.

With four grown children, he and his wife Lois are ready at any time to take off together for distant parts of the world whenever they can. Jumping across the continent or winging across the Atlantic have become almost commonplace for Daxe Buxton. It has been a very long yet a short road back. He's a lucky man . . . and he knows it.

Tuition note . . .

Application forms and updated general rules on the Grumman Tuition Reimbursement Program are available at Employee Services and Field Base Administration offices.

Students are reminded that applications for the spring term must be filed with the Tuition Reimbursement Office, Department 327, Plant 39, within 15 days of the school's last date of registration.

About the ads . . .

You can start looking for a four-page ad supplement, distributed through Employee Services Offices, within the next week. We're sorry we are unable to include advertisements in Plane News. We have been restricted to eight pages in recent issues and there has been so much corporate news that something had to give.

Find EXCEL providing key managerial assist in Aerospace

It has been about seven months since the EXCEL program was first introduced at Grumman Aerospace, and though it has had very little fanfare and is probably the least understood program in the company, those who head the EXCEL effort believe it it already showing startling results.

EXCEL (Excellence in Cost Effective Leadership) was introduced last July to Grumman Aerospace by Board Chairman and President Joe Gavin. He cited the fierce competition that existed in the aerospace industry and the critical need for doing an outstanding job on all aircraft programs, especially the F-14, as the reason for initiating EXCEL and promised his full support to the program. A management technique such as EXCEL, he said, was necessary to assist the company in finding better ways to manage its programs.

"We are training people from the major operating departments in the company to help local supervisors find out where problem areas exist and what must be done to correct them. In that way," Gavin said at the time, "we can assist a supervisor and his or her group achieve first-class operations so that they can contribute their full share toward company success."

Soon after, the first 17 (soon 21) analysts were trained and assigned to various sections of engineering, manufacturing, (both Bethpage and Calverton), administrative, procurement and treasurer-finance functions to assist supervisors in locating and identifying any problem areas.

And how has it gone? Very well, according to Bob Mullaney, EXCEL program manager. Departments with approximately 3,000 people in them are involved in the EXCEL program at Grumman Aerospace. And though part of their job is to make observations of various activities within these departments, analysts are not an elite or SS group, he insists. In fact, he was emphatic on that subject. "We analyze group activity, not individuals within these groups. We try to determine how effective a group is working together — and if they're not as effective as they might be, we try to assist the supervisor in finding out why."

Profile analysis

When assigned to a specific department, says Frank Vuozzo, deputy manager of EXCEL, these analysts first try to establish with the supervisor a profile analysis of the group; in other words, what tasks are involved, what the group does to complete these tasks, and how much effort it takes to complete these operations. From this basic study of the group, the analyst then proceeds to make daily observations of the work routine from which data analyses and reports are generated. These findings are reviewed with the local supervisor.

"We try to take a realistic approach," says Vuozzo. "An analyst sits down with each supervisor before starting observations and they determine what percentage of out-of-area work is involved, for example, and that is reflected in our reports. Let's face it: We know that a person doesn't stay at his or her workplace 100 percent of the time—and we don't expect them to.

Weekly report. **EXCEL analyst Caren Carlson meets with Max Ross, manager of Requirements Planning, Plant 30, to review weekly report of his group. There are 21 analysts working on the EXCEL prorgam at Grumman Aerospace. (Photo by Jim Wagner)**

"Providing the supervisor another—and, we think, objective—set of eyes and ears and brain can assist him in getting his job done. For instance, maybe there's an unusual amount of out-of-area work because assemblers have to go to another part of the plant to get certain cryo fittings out of freezer lockers. It's just possible that our observations might c o n v i n c e management that it would save money to provide more freezers to cut down these necessary out-of-area trips."

And though this effort measurement of a group is related to 100 percent standard expectancy, Vuozzo explains, some delays are understandable and expected. It is the avoidable delays—red tape, poor operational procedures, and delayed material delivery schedules, for instance—and their ultimate effect on the group (and eventually the corporate) effort that receive the greatest attention.

Initially, analysts make 15 observations a day of each group involved; that is reduced to 10 each day and

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Name Smith director of Grumman operations at Pt. Mugu

Joseph G. Smith, formerly deputy director of Operations at Plant 88, Naval Air Station, Pt. Mugu, California, has been appointed director of that facility, and Charles H. Brown has been named deputy director, Mike Pelehach vice president and F-14 project director announced.

In his new assignment, Smith will be responsible for the Flight Test Development effort, modification programs and the support of Navy activities at both the Pt. Mugu facility and the Naval Air Station at Miramar, California.

Smith holds a mechanical engineering degree from the University of Utah, a master of science degree from George Washington University, and is a graduate of the Naval War College. In 1950, Smith was the first American to receive the McKenna Trophy at the Empire Test Pilots School, Farnborough, England.

Smith's association with Grumman and its products began during World War II. Since then, he has flown nearly every airplane the company has built, including the SF-1, Widgeon, Goose and the Grumman "Duck". At one point of his career, he had piloted almost all Navy, Air Force and British aircraft as well.

His many Navy assignments have alternated from research, test and development ashore to operational duty afloat. During one of his three tours at Patuxent River, he was director of the Navy Test Pilot School where his students included such astronauts as Alan Shepherd and John Glenn. He was also head of the Fighter Design Branch in the Bureau of Aeronautics, and served as commanding officer of the U.S.S. Hyades and the U.S.S. Intrepid. From 1959-61, he commanded Air Test and Evaluation Squadron Four at NAS, Pt. Mugu, and then became commanding officer of the NAS.

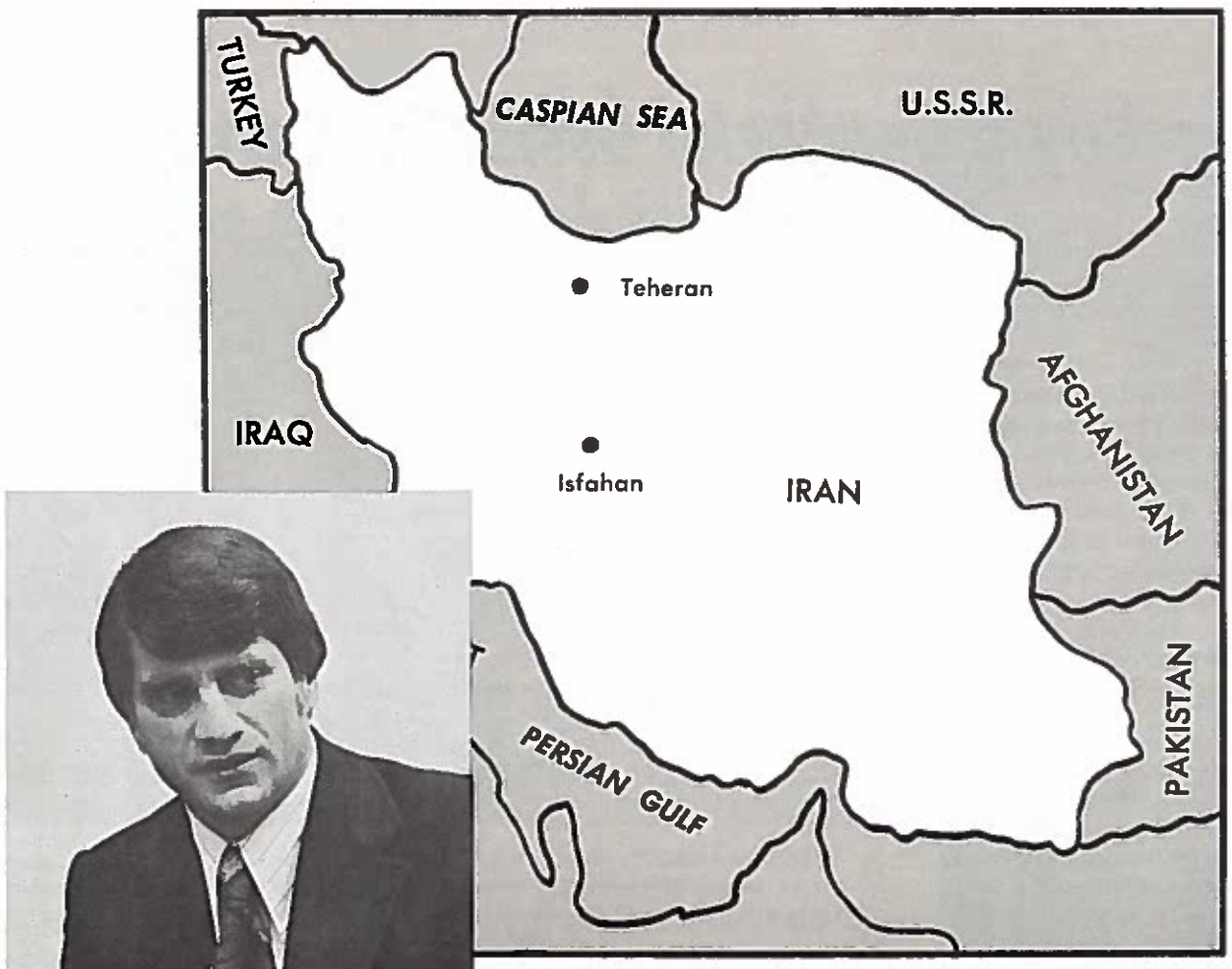
Joe Smith

Charley Brown

The new director joined Grumman in 1969 after 30 years service in the Navy. His first assignment at Grumman was on the staff to the director of planning in product manufacturing, and for the past two years he has been at Pt. Mugu.

Charles Brown earned his bachelors and master of science degrees from the University of Colorado and his master of arts degree from George Washington University.

Brown joined Grumman in 1967 following 22 years in the Navy which culminated with his assignment as commanding officer of Fighter Squadron 142 and two combat tours to Vietnam aboard the carriers U.S.S. Constellation and U.S.S. Ranger. He was assigned to Grumman's F-14 program in 1968 as combat and operational suitability pilot. In 1971, he graduated from the U.S. Navy Test Pilot School and was assigned as the F-14 program manager and project pilot for the carrier suitability program at NATC, Patuxent River, Md.



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UNDER WAY FOR IRAN

Grumman International's newest vice president is Tom Brancati, formerly director of Grumman's Pt. Mugu, Calif., operations. Brancati's primary role, according to Grumman International President, Bob Townsend, will be that of director of Middle East operations.

"One of the reasons I was asked to go to Iran was because of my background in establishing the Pt. Mugu operation 3,000 miles away from Bethpage," he says. "It gave me a certain amount of experience in dealing off-site which is quite different from running an operation in the same locality as the company headquarters."

Brancati joined Grumman in 1963 as a systems analyst after a stint in the Air Force and four years with Sperry Gyroscope. He later joined a team in preliminary design which started development of the EA-6B concept. When the EA-6B was made a full program, Brancati was named project engineer.

"One of the highlights of my life," he says, "was starting the EA-6B on paper and following it through to flying in the right seat of the first weapons systems prototype."

In 1968, when Grumman received a contract to do the weapons system development work for the F-14 at Pt. Mugu, Brancati was named deputy director of that operation. A year later, he became director. While on the West Coast, Brancati witnessed the first flight of the F-14 weapons system, the first F-14 missile firing and the successful completion of the F-14 BIS trials conducted on the West Coast.

Brancati left Pt. Mugu officially on Nov. 20 to join Grumman International. In a recent interview with Plane News, he discusses the plans for the new branch office in Iran and the various operations the company will conduct in that country.

What were your impressions when you first visited Iran?

The first thing I had to get used to in terms of the existing controlled situation was going through customs. Last fall, Grumman International Vice President Pete Oram and I went to Teheran to do a management review of the country. We were not only looking at the potential F-14 program, but also the long-range goals of providing Grumman's technology and management expertise in Iran. The customs inspection was very much different from that in the U.S. But we were the foreigners in Iran and once we got accustomed to that fact, we were able to enjoy our stay there.

Iran is a very large country and its climate is almost as diverse as that in the U.S., ranging from desert to mountain regions. With an elevation of 4,500 feet in Teheran, summers are very warm and winters are generally cold. In fact, the last time I was there, about nine inches of snow fell.

There are some 10,000 Americans in the city of Teheran alone which has a total population of 3.5 million. It is a westernized city and English is the second most frequently spoken language. The Americans don't live in compounds but are scattered throughout the city. Wood is scarce in Iran so most homes are built of concrete with marble floors, and the surrounding landscape and architecture bear a strong resemblance to that in Tucson, Arizona.

Are Americans welcome in Iran?

Very much so. In fact, when you get in a taxi, the driver generally asks if you want to hear American or Persian music.

What precautions will Grumman take to insure that this friendliness continues?

Grumman will ultimately have as many as 300 contractor-type personnel and their families in Iran to support the F-14 program and its many facets. We plan to screen all the candidates for these jobs very carefully. We will not only be concerned with the employees, but also their families to make sure they have the proper attitudes and the ability to adapt to the Iranian society. An employee can work in a foreign country in much the same way that he works in the U.S. But his wife and children must face

"Grumman will ultimately have as many as 300 contractor-type personnel and their families in Iran to support the F-14 program and its many facets . . ."

conditions that may be totally different from those they are accustomed to in the U.S. Take driving a car as an example. The penalties for automobile accidents in Iran are very severe for expatriates, so our employees won't be able to drive cars. We will provide transportation for them but they will still have to adapt to the fact that they won't be able to hop in their cars and just take off. Unless the whole family can adjust to these differences, severe problems and hardships may result.

How do you plan to screen Grumman people for assignments in Iran?

We expect to hold one-week indoctrination programs, utilizing such things as films, reading materials and various instructions to show families some of the things they will be faced with. We want to present things accurately so there won't be any big surprises when our people arrive in Iran. If there is any question of an individual's adaptability or suitability, we hope to uncover it early in the screening process.

What kinds of schools are available for U.S. students in Iran?

There are three basic schools for Americans in Teheran: the Teheran-American school which is only for children with American passports; the "community school" which is an international school run on the American plan but which all children can attend; and the Teheran-International school which is like the community school but is heavily international in operation.

Where will most of the Grummanites live?

Some will be in Teheran but most will be located in Isfahan, 220 miles south of Teheran where the F-14 will be introduced. A base with two runways is now being built by the Imperial Iranian Air Force which should be ready to accept F-14s in about 18 months. We are now working toward having the first F-14s arrive in Iran in January, 1976.

Are any other U.S. companies located in Isfahan?

Bell has a large helicopter program in Isfahan and is expanding its American community there by about 1,300 people.

Is Isfahan prepared for the large influx of Grumman and Bell people?

Isfahan is a city with about one million people. It was a capital of Iran for many years and is a very historic city. It has many landmarks and religious monuments and it is one of the most attractive areas in Iran for tourism. So, when you put 1,300 Americans into a location like this, you must be prepared to bridge a fairly wide gap. Until recently, Isfahan didn't have any schools for American youngsters, but Bell has since set up a school for Americans. By the time we are ready to send Grumman families to Isfahan, the school system should be fairly well established. We would like to bring our people into the area gradually, but with the bulk of our planes due in January, 1976, we will have a lot of people moving in at one time.

What is the "total package" Iran is buying from the U.S.?

The total purchase price of $900 million is for 30 F-14s. However, the Iranians have also asked for a "mirror image" of the training facilities at the Naval Air Station at Miramar, Calif., including audiovisual classroom training to full cockpit procedure training to both front and backseat, motor-based trainers. We are planning to outfit Isfahan with both special and standard test equipment, all of which costs a great deal of money. The result is that a large portion of the total purchase price will be for support equipment. We will also have to train the Iranian maintenance people, pilots and weapons system officers. In Iran, backseat operators in aircraft are usually pilots who are waiting to become front seat operators. But the F-14 requires professional, well-qualified backseat operators so we will help the Iranian Air Force as they change the backseat operator's image and his professional status in terms of such things as pay, rank and the respect that goes along with the job.

Will Grumman do any aircraft assembly work in Iran?

No. We will only do organizational and intermediate level maintenance to insure that our planes fly the required 30 hours a month. Overhaul work on the F-14 will be done by an Iranian company—Iran Aircraft Industries—which will do depot-level overhaul work.

How will Grumman deal with the Iranians in the sale of military products?

Our present sale is on a government-to-government basis. That is, we will deal through the official U.S. advisor to the Imperial Iranian Air Force which is called the military assistance advisory group—the MAAG. We maintain a close association with the MAAG in all of our dealings with the Iranian Air Force.

In addition to military products, what other Grumman products do you plan to make available in Iran and the other Middle East Countries?

The Shah of Iran is a very farsighted individual and plans to convert Iran's rich oil output resources into industrialization programs. This way, if the oil resources in Iran diminish, the country can move forth as an industrialized nation. Our long-range goal, therefore, is to supply the Iranian government with whatever technical assistance we can that will help the industrial growth of that country. For example, the Iranian government plans to build some 600 hospitals throughout the country with an associated network of mobile-type units. Grumman Health Systems products may be helpful here. We have discussed the possibility of selling AgCats to the Iranian Ministry of Agriculture and we are also looking into aiding the country's expanding aviation industry with such things as civil aviation and undergraduate military pilot training, and with our light utility aircraft. We have also discussed some opportunities for Grumman Data Systems in Iran and have submitted proposals via KLM to do computerized work for reservations for the Iran Air Lines.

Thus, we are emphasizing Grumman products across the board. The F-14 is the springboard for us to help the Iranians with their industrialization programs and to assist the Shah with his plans to increase the standard of living for his people. We are confident that Grumman has the technical expertise and the products to assist in this growth.

Will you be able to lean heavily on the parent company in Bethpage for decisions concerning operations in Iran?

We will when we can, but we will have to have a fairly self-sustaining operation in Iran in which decisions can be made on the scene. One major reason is comunications. For example, one Saturday morning I placed a phone call to some Grumman people who were then in Teheran. There is a six-and-a-half-hour time difference between New York and Teheran and when the overseas operator took my call she said she would put it through and "where will you be at 6 p.m. on Tuesday to receive the call." Teletype communications take about a day to complete while phone calls from Teheran to the U.S. can be completed in eight to 12 hours. Still, to generate the kind of business atmosphere we want, we won't always be able to wait two or three days for advice from Bethpage when a decision has to be made immediately.

What will be your first step in setting up operations in Iran?

We're now in the process of opening an office for Grumman International in Teheran. In addition to our support of the F-14 program, one of our major tasks will be to help establish a joint-venture company in participating with the Iranians to promote Grumman's technology.

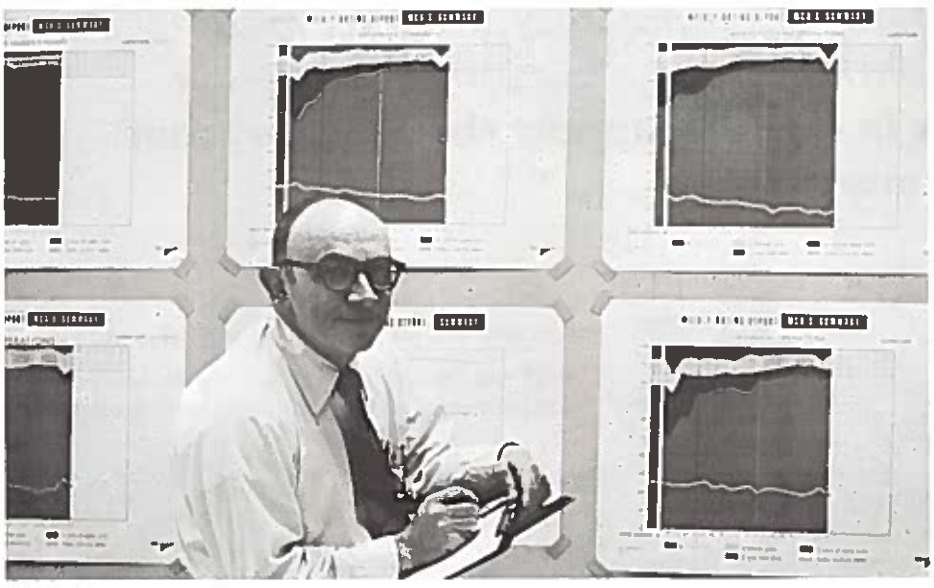
Moreover, within the next few weeks, several Grumman families will be moving to Teheran. Among them will be Tony Nargi, who will be director of military programs in Teheran; Bill James, who will handle all industrial relations; and Dick Connelly, the resources director.

Is the current Middle East situation a hindrance to your operation?

Iran, of course, deals with both Israel and the Arab countries. There are some difficulties in traveling between the Arab countries and Israel, but our concern is a business operation in Iran. As long as we keep our sights focused on assisting these countries in terms of technology, we will have a certain amount of freedom. Moreover, the Middle East is actually driving the rest of the world today; I like to think from a personal standpoint that's a good spot to be in. We're going into an area that is the forcing function of political situations today, which I think offers a great potential for us in assisting with our technology. We're going over to assist Iran, not to tell them how to do things. And if we are able to help them move in the direction they want and to get closer to the industrialized nations, then we will have accomplished something.

How does the Iranian program compare with Grumman's other international efforts?

This is Grumman's largest endeavor in the international world and is the first major step for us to expand all of our international operations. In moving out into the international world, we're putting one foot ahead of the other cautiously and we're learning a lot. As we learn, we feed that information back into Grumman International which hopefully will lead to an expansion into the international field for all Grumman products.



Charting progress. At the EXCEL control center, Plant 5, Frank Vuozzo displays one of the weekly reports that is used to chart progress of corporate groups participating in EXCEL. (Photo by Bob Settles)

Enough coverage on no-fault?

(Continued from page 1)

wages, $100,000 with $2,000 loss of wages; $150,000 with $3,000 loss of wages for between $6-$13 a year per car. Some companies offer even higher protection, at higher rates, of course.

Under the new no-fault law, you can still sue or be sued for "pain and suffering" provided medical expenses of more than $500 are incurred or death or disfigurement results from the accident. As before, you are required to carry liability insurance with bodily-injury limits of $10,000 a person and $20,000 per accident and property damage limit of $5,000. Many insurance experts feel that no one should carry less than $50,000-$100,000 and if you have high assets, you should have $100,000 to $300,000. That would run most policy holders about $15 or $20 a year per car.

In short, if you haven't heard from your insurance company about the important options available to you, it would be wise to contact your insurance agent.

According to Paul Vandenburgh of The Traveler's Insurance Company, the supplementary application for additional options is now in the mail to policy holders at Grumman. If you have Traveler's insurance, says Vandenburgh, you will be automatically covered for the basic no-fault limit with medical payments and out-of-state coverage provided. However, if you desire any other increases in benefits, it will be necessary for you to complete the supplementary application which you receive. Direct questions to a Travelers rep or call Ext. 86367.

Find EXCEL providing key managerial assist in Aerospace

(Continued from page 3)

continued for about six months. Of course, if problem areas persist, these observations may be continued.

All observations made by these analysts are by random sampling, Frank points out, which has been found by other companies in the industry to be the most economical. Its accuracy is predictable; it permits rapid reporting; and it identifies group, rather than individual, effort or performance.

Weekly review

At the EXCEL control center in Plant 5, Vuozzo plots and posts weekly reports on each group so that overall results can be determined. Besides getting a copy of the weekly report to post so that all in the group can follow progress, an individual supervisor also reviews with the analyst this report to try and locate and identify any problem areas, and come up with suitable solutions for eliminating the bottlenecks.

When there are several sections of a department participating in EXCEL, the department head gets an overall report of their activities each week. There are also periodic reviews with plant management and once-a-month composite charts that are reviewed with corporate management as well.

Scanning the myriad charts that cover the walls of the EXCEL control center at Plant 5, it appears that progress *is* being made in managing the company's various programs. Mullaney says there's no doubt about it. He points to a 13 percent improvement in work force effectiveness (in the groups being observed) as proof of EXCEL's beneficial impact on Grumman Aerospace.

Of course, there are some who still feel concern about EXCEL. "That may be," says Mullaney, "but before we implement EXCEL into any group or department, we first brief everyone in that area as to just what the program is all about. And they're welcome to see what we're doing in Plant 5, too. There's no secret about our work."

Of several supervisors interviewed recently, one viewed it this way: "I felt my group was efficient and felt EXCEL would reflect this. At first there seemed to be some resentment; they were aware they were being observed . . . but after the first two weeks they seemed to accept it. EXCEL did make us more aware of out-of-area activity and we have been able to curtail some of this activity. We're in the EXCEL target area now so daily observations have been stopped . . . "

Or: "I worked with a similar program at another company. We have only part of my group in EXCEL and I questioned that. We have people out-of-area on business quite a bit, with travel to Calverton and other plants. We have peak work loads and panic situations when we get caught up in proposals — we have three going on simultaneously, now—and when you drive hard you have to know when to relax. Maybe indirectly EXCEL helps keep idle time and out-of-area statistics under control. The rating reports give me an idea of our group performance too. I do think the corporation needed it. Some people think it's a spy system, others don't like it. We should reveal our findings and explain what has been achieved. My people seem to have accepted it without any problem."

Forecasting aid

And another: "The EXCEL philosophy is really good. Whether one person can monitor the areas assigned is questionable, however. And another thing that bothers me is whether the increase in efficiency is a true gain in efficiency or only a temporary one. It has forced us to do a greater evaluation on how our time is spent, however. Statistically, based on EXCEL data, we found that we had 25-30% of our people away working in other areas. We can now use that to forecast downstream effort.

"Most people didn't like the program when it first started. They felt we weren't being treated like adults, and that if a crash program came up, the work would be done. After many meetings, they understand it better now. I believe any supervisor will make sure the work is done . . . and if there's any boondoggling that guy will be gone. The scope of our task is horrendous but our analyst did his best to understand what we did. At first we thought of him as an efficiency expert—nobody like that. But this guy was honest and fair."

Looking at it from an analyst's point of view, this is what one had to say: "At first I'd make my observation while walking through a department from the rear but people seemed to resent that. I thought I'd disturb them less but they seemed to feel that I was looking over their shoulder. Now I often make my samplings in full view —approaching them head-on, I mean. Once they've seen the program and how it works, they usually come around. But we must also be able to work with management . . . that is where I see as the area to make solid advances."

Vuozzo insists that there is no hocus-pocus, no secret formulas, only good management procedures involved with EXCEL. And he's convinced that if all people at Grumman were well informed of the EXCEL program, the toughest hurdle would be overcome. He says that the company is planning to continue the program through the middle of 1975 and by that time more than 8,000 people will have become involved in the effort.

In his message last July, Joe Gavin said: "With your help, we can make EXCEL work for us. It can improve our position with the customer: it can lead to better overall morale by assisting us in achieving total team effort; it can help make our jobs more secure. We are convinced that all of our people want to do a good job. Through EXCEL, we are sure that we can eliminate many of the frustrations and, hopefully, all of the bottlenecks that obstruct us in that effort."

OBITUARIES

JOHN F. PATTERSON of Subassembly, Plant 1, died January 24 at the age of 32. He had been with Grumman Aerospace since 1962 and lived at 34 Dogwood Lane, Westbury.

JOHN E. COLEMAN of Maintenance, Plant 2, died January 29 at the age of 59. He had been with Grumman Aerospace since 1962 and lived at 79 Allares Blvd., Roosevelt.

ADELE J. LINK of Corporate Planning Control and Budgets, Plant 2, died January 30 at the age of 53. She had been with the company since November 1973, and lived at 136 Exeter Rd., Massapequa.

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GRUMMAN
news

Published twice a month for the employees of Grumman Corporation, Bethpage, N. Y. 11714, as a function of the Public Affairs Dept., Vice President J. B. Rettaliata, director.

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Holiday joy. Among the others at Grumman who were active in providing assistance to charitable groups was the Grumman Aerospace Shipping Department, which donated more than a thousand dollars to St. Mary of the Angels Home in Syosset. Shown at the presentation with Sister Mary Olivia and children who live at the residence are Tony Friscia, Hilda Shruell, Liz Gardner, Linda Kost, Theda Marinaro, and Jerry Mason. (Photo by Marie Trimborn)

Fund drives brought joy to many families in need

Why do people give to their favorite charity, or fund drive? Do they give because its tax deductible or because they care? Whatever the reason may be, there is something special that happens when someone gives.

The Product Support Department in Grumman Aerospace sponsors a program each year to assist needy employees. Through the Christmas fund many employees are able to enjoy the new year. The employees are picked from a list from each department and submitted to the Christmas fund committee. The committee chooses its recipients very carefully from this list.

In December 1973 the committee received contributions totalling $3,400. The funds were distributed among 14 Grumman families.

Josh Heisman, administrator of the Christmas fund discussed the success of last year's fund drive.

"Although Christmas is past, there is still a special message to be told," said Heisman. "People might not know of the success of the fund drive."

There is indeed a success story behind last year's Christmas fund that the committee shared with Plane News. One of the families that shared in this year's fund wrote a poem thanking the Grumman employees for their concern and generosity.

"God looked down from Heaven above
He was happy, for He saw love
He saw a star, shiny and light
Bright as the star on Christmas night
He saw an extended helping hand
This family's gratitude He will understand
I will keep these hearts close to my own
For those bringing health and hope to this troubled home"

May this poem remind us all in this year that there is still something beautiful when we give.

Their slip is showing

The Grumman pistol teams haven't been hitting the target where it really counts lately. Out of five squads entered in the South Shore and Industrial leagues, only the "D" and the Gold teams have a winning record.

In the expert division of the Industrail circuit, the "D" squad sports a record of 7-1. The winners have vanquished such opponents as Sperry, 1051-1005, Al Berka shooting 272; Brookhaven Labs, 1055-1033, with Dave Rice and Al Berka firing 276 each; Pan Am "B", 1076-1055, Berka being top man again with 275. The pistoliers also handed fellow workers on the Gold team their third loss 1073-1046. Top scorer was Berka again with 281.

The Grumman Gold shooters have managed to boost their standings to 4-3 by defeating Kollsman, 1068-1036. Top gun was Ron Trenkner, 273.

In the sharpshooter division, the "E" team stands at 2-3.

Karate, anyone?

The GAA is now sponsoring evening classes for those who are interested in mastering the art of Shotokan Karate. Classes start on February 14 at 5 p.m. in Plant 35 Cafeteria. For more information contact the GAA office.

It's not easy to top '200' but keglers keep on tryin'

Many top keglers have become institutions on the PN sports page. How can they bowl week after week and break 200? It's only fair to give them due recognition for their feats. But what about the hundreds of frustrated keglers who struggle to boost this year's average two points higher? They are truly the unsung heroes and heroines of the alleys.

Take Terry Horowitz of the Hawkeye Mixed league; her average is 130 and she recently pounded the pins for 179. Now she may not do that every week but she'll keep on tryin'.

Or how about Bob Pfaltz who starts at 151 in the Red league and kills the pins enough to boost his average to 165. Not bad, Bob!

Here's to all the other unsung Grumman bowlers! In the Woodbury Mixed league: Bertha Budeshiem, 166-459; John Kirk, 254-572. In the Black league: Rosey Graham had quite a game with six straight strikes for 233; Walt Stehlin, 208-246-616; Russ Player, 209-211-595. In Outpost action: Bob Foster 221-592; Carl Kohler, 216-589; Al Wodraska, 232-728.

Highlights of the Red league play: Al Weisskopf, 557; Ben Monte, 220-554; in the Night Owl: Peggy Kolody, 147-500; Rudy Dunkley, 626.

Out in the Patchogue Mixed: Dot Van Glahn, 186-520; Carol Chamberlain, 185-531; Mike Scully, tieing the season high that he already held—256—with a 587 series. In the Classified pin action: Bob Johnson, 236-598; Chick Catalano, 218-572; Bob Dudonis, 209-571.

Highlights of the Hawkeye Mixed: Eileen Aloise, 166-168; Eleanore White, 165-473; Lonnie Bresnick, 223-236-639; John Magliano, 209-212-597. In the Trader league, Whitey Bodnarchuk, 225-220-616; Steve Kish, 210-550; Bob Washington, 211-549. In the Century Mixed action: Bill Hynes, 188-199; Mike Pelehach, 188-190; Joan Bussolini, 178; Ruth Musa, 175; Nancy Gentzlinger, 185-185-513; Bill Kallansrude, 242-570. In Aerospace action, Bill McKinnon, 201-584; Ted Dija, a triplicate—193-193-193-579.

Hilbert leads in pin trials

Ed Hilbert grabbed the lead early in the first rounds of the 1974 men's varsity bowling rolloffs—and he hasn't stopped long enough to notice that he's run away with the top spot. Averaging a commendable 193 for the 27-game rolloffs, Hilbert pulled out to an early lead in the opening round with a six game total of 1,249. The closest man to him was Rich Neste — and after eight three-game series, Neste is still right behind.

Four rounds have already been completed for the starting spots on the five-man varsity squad. Out of the 55 keglers who vied for the five starting spots in the L.I. Industrial tournament, only 10 bowlers now remain in contention: Hilbert, 4,647; Neste, 4,551; Cliff Hartnack, 4,488; Frank Tucholski, 4,467; Nick Malandro, 4,437; Tom O'Connor, 4,368; Frank Fiorentino, 4,363; Don Vazquez, 4,338; Ted Dija, 4,325; Ed Gabriel, 4,321.

Anything goes in the final 3-game round. Ted Dija, for instance, who ranked number 15 before the fourth round moved up to number nine in that session. But it's easy to see that Hilbert has his eyes on being number one—and it looks as though no one is gonna stand in his way.

Announce billiards tourney

Is there a "Massapequa Fats" or a "Hauppauge Hustler" among the Grumman billiard buffs? You might be the top poolster. One sure way to find out is to enter the 12th Annual GAA Pocket Billiards Tournament scheduled to begin Thursday, February 21.

According to tourney director Mike Cherry, matches will be conducted every Thursday starting at 5:15 p.m. at the House of Lords in Plainview. Elimination games will be 75 points, one loss and out. When the field is reduced to four contenders the games will be 100 points and double elimination.

Entry deadline is Friday, February 15. For additional information, contact Mike Cherry on Ext. 2133 or 2269.

Pocket Billiards Tourney

Entry Blank

Name ..... Ext. .....

Perm. No. ..... Dept. ..... Plt. .....

Entry Deadline, Friday, February 15
(Forward to GAA Office, Plant 30)

Scanning the news

VA-75 wins top Navy attack award

You've heard of the "Gold Plated Cadillac" . . . well, in Oceana, Va., a couple of months ago, A-6 Program Director Bill Trillo presented a gold-plated Intruder to the commander of the Navy's outstanding attack squadron last year. Trillo, shown above (L) with Mickey Hutter, A-6 rep for Customer Requirements (R), made the presentation to Cdr. Bill Greene, skipper of VA-75, an Intruder squadron based at Oceana, Va. Earlier at the Tailhook Convention, Greene accepted the Rear Adm. Wade McClusky Award, made annually to the Navy's outstanding attack squadron.

Intruder pilot hits 1,000 hr. mark

Aboard the carrier America cruising in the Mediterranean, Lt. Cdr. Efird Stack recently logged his 1000th flight hour in the A-6 Intruder. Stack, a pilot for Attack Squadron 35, received a plaque marking the event from Cdr. G. H. Hesse, the squadron skipper. Commander Stack, a Navy pilot since 1961, first trained in the A-6 in August of '68 and joined VA-35 in March of 1973.

Meyer elected GAMA president

Russ Meyer, President of Grumman American Aviation Corporation, has been elected chairman of the board of the General Aviation Manufacturers Association for 1974.

Meyer, who received his Bachelor of Arts degree from Yale in 1954, returned to college, this time Harvard, where he received his Doctor of Laws degree, following service in the U.S. Air Force. He is now a jet pilot in the U.S. Marine Corps Reserve.

Russ Meyer was elected president of American Aviation in 1966, and continued to serve in that post when that company was merged with the commercial aircraft operations of Grumman Aerospace in 1973. The new company was named Grumman American Aviation Corporation.

GAMA is comprised of 30 member companies representing over 99 percent of the nation's total general aviation production. The association works within the industry and Government to create a better climate for the growth of general aviation worldwide.

See billion-dollar potential in trainer-simulator market

(Continued from page 1)

Grumman is not a novice in the maintenance and flight training field, either. The company has provided maintenance trainers for every aircraft it has ever built. In addition, some of Grumman's other training systems are:

- LM simulators at both the Kennedy and the Johnson Space Centers, and at Bethpage.
- four F-14 operational flight trainers and the E-2C tactics trainer.
- the A-6E suitcase emergency procedures trainer (SCEPTR) that can actually be folded to fit into a suitcase.

In addition to its broad simulator experience, Grumman also has the invaluable resources of available state-of-the-art technical personnel and experienced shop fabrication, assembly and integration personnel. All told, there are some 300 people in or working with the Training Systems Dept., including Joe Fellingham, deputy director; Marvin Fischthal, in charge of the technical section; and Sam Greenberg, head of marketing.

Unlike aircraft manufacturing, simulator-trainers are built in small numbers, perhaps only two or three at a time. Thus, "the design and fabrication procedures must be tailored to that kind of work in order for us to become cost competitive with the rest of the industry," says Doc Tripp. "We plan to have a relatively small nucleus of people assigned to work in a closely controlled area where they can specialize in the building of all of our trainers. Other personnel will be brought in on a temporary basis from their home departments as they are needed."

Come March, the Training Systems Dept. will begin to move to Plant 44 in Great River, about 25 miles from Bethpage. Eventually, the department plans to design and build all of the trainers and simulators at this location.

New venture. Grumman Aerospace formed the Training Systems Department several months ago to tap a potential billion-dollar market in trainer-simulator field. Vice President Ralph (Doc) Tripp (L) is director of the new venture and Sam Greenberg (R) heads marketing. Others involved in the effort are Joe Fellingham, deputy director, and Marvin Fischthal, who heads the technical section. (Photo by Bob Settles)

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